

Amendments to the Drawing Figures:

The attached drawing sheets include proposed changes to FIGs. 1-3 and replace the original sheets including FIGs. 1-3

Attachment: Replacement Sheets.

REMARKS/DISCUSSION OF ISSUES

By this Amendment, Applicant cancels claims 12-14 without disclaimer of the underlying subject matter, or prejudice against future prosecution. Accordingly, claims 1-11 are pending in the application.

Applicant thanks the Examiner for acknowledging the claim for priority and receipt of certified copies of all the priority documents.

Reexamination and reconsideration are respectfully requested in view of the Remarks below.

35 U.S.C. § 103

The Office Action rejects claims 1-11 under 35 U.S.C. § 103 over Pechanek et al. U.S. patent 6,101, 592 ("Pechanek '592") in view of Pechanek et al. U.S. patent 6,173, 389 ("Pechanek '389").

Applicant respectfully traverses those rejections for at least the following reasons.

Claim 1

M.P.E.P. § 2143.03 provides that:

"All Claim Limitations Must Be Taught or Suggested. To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)."

Among other things, in the processing apparatus of claim 1 each issue slot comprises a plurality of functional units.

The Office Action fairly admits that Pechanek '592 does not disclose such a feature. Furthermore, the Office Action does not allege that Pechanek '389 discloses such a feature either. Instead, the Office Action states that:

“one of ordinary skill in the art would be motivated to use the concept of multiple execution units per slot so that a VLIW instruction with multiple floating point (FP) instructions would not find itself blocked from execution by having to await the completion of one multi-cycle on one of several FP execution units.”

Applicant respectfully disagrees.

At the outset, M.P.E.P. § 2143.01(I) provides that:

*“THE PRIOR ART MUST SUGGEST THE DESIRABILITY OF THE CLAIMED INVENTION. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. In re Kahn, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006) (discussing rationale underlying the motivation-suggestion-teaching requirement as **a guard against using hindsight in an obviousness analysis**). The teaching, suggestion, or motivation **must be found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art**”*

(emphasis added).

Here, the Office Action does not anything in the prior art in support of its conclusory statement regarding what one of ordinary skill in the art supposedly would be motivated to do, nor does it include an affidavit under 37 CFR 1.104(d)(2) if this statement was based on facts within the Examiner's personal knowledge.¹ Otherwise, such conclusory statements lacking support in the prior art clearly cannot form the basis for a rejection of Applicant's claims under 35 U.S.C. § 103:

¹ Applicant respectfully requests such an affidavit if Applicant's claims are rejected based on a proposed motivation within the Examiner's personal knowledge.

“[T]he Board [or examiner] must point to some concrete evidence in the record in support of these findings to satisfy the substantial evidence test).”

M.P.E.P. § 2144.03(C); see also In re Lee, 277 F.3d 1338, 1344-45, 61 USPQ2d 1430, 1434-35 (Fed. Cir. 2002) and M.P.E.P. § 2144.03(A).

So, Applicant respectfully submits that there is no basis for the proposed modification of Pechanek '592 to include a feature wherein each issue slot comprises a plurality of functional units.

Therefore, as the prior art does not include all of the features of Applicant's claim 1, then under M.P.E.P. § 2143.03 (cited above) Applicant's claim 1 is patentable under 35 U.S.C. § 103.

Accordingly, for at least these reasons, Applicant respectfully submits that claim 1 is patentable over the cited prior art.

Claims 2-7

Claims 2-7 depend from claim 1 and are deemed patentable over the prior art for at least the reasons set forth above with respect to claim 1, and for the following additional reasons.

Claim 3

Among other things, in the processing apparatus of claim 3 the VLIW instruction is a compressed VLIW instruction, comprising dedicated bits for encoding of NOP operations. Applicant respectfully submits that the cited prior art fails to disclose or suggest such a combination of features, and in particular Pechanek '592 does not disclose or suggest such features in the cited text at col. 14, lines 21-25 which do not even mention any compressed instructions, or any NOP operations.

Claim 4

Among other things, the processing apparatus of claim 4 includes a decompression means for decompressing the compressed VLIW instruction and wherein the decompression means is conceived to derive information on the control

word width using the dedicated bits. Applicant respectfully submits that the cited prior art fails to disclose or suggest such a combination of features, and in particular Pechanek '592 does not disclose or suggest such features in the cited text at cols. 4, 5 and 6.

Claim 8

Among other things, the method of claim 8 includes processing data retrieved from a register file based on control signals generated from a set of instructions being executed in parallel, the set of instructions comprising at least a first and a second instruction, a first issue slot being controlled by a first control word corresponding to the first instruction and a second issue slot being controlled by a second control word corresponding to the second instruction, wherein the first and the second issue slots each comprise a plurality of functional units.

For similar reasons to those set forth above with respect to claim 1, Applicant respectfully submits that the cited prior art, taken alone or collectively, does not suggest any method of processing data where first and second instructions are processed in first and second issue slots each comprising a plurality of functional units.

Accordingly, for at least these reasons, Applicant respectfully submits that claim 8 is patentable over the cited prior art.

Claims 9-11

Claims 9-11 all depend from claim 8 and are deemed patentable over the prior art for at least the reasons set forth above with respect to claim 1, and for the following additional reasons.

Claims 10-11

Claims 10-11 include features similar to those recited above with respect to claims 3-4 and, respectively, and are deemed patentable for at least similar reasons to those set forth above with respect to claims 3-4.

CONCLUSION


In view of the foregoing explanations, Applicant respectfully requests that the

Examiner reconsider and reexamine the present application, allow claims 1-11 and pass the application to issue. In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Kenneth D. Springer (Reg. No. 39,843) at (571) 283.0720 to discuss these matters.

If necessary, the Commissioner is hereby authorized in this reply to charge payment or credit any overpayment (except for the issue fee) to Deposit Account No. 50-0238 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17, particularly extension of time fees.

Respectfully submitted,

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